National Transportation Safety Board

Office of Aviation Safety
Washington, D.C. 20594-2000
October 6, 2005

WEATHER STUDY

DCA06MM001

A. ACCIDENT

Location: Southern part of Lake George, Warren County, New York
Date: October 2, 2005
Time: 1500 eastern daylight time (1900 UTC[1])
Ship: PV Ethan Allen

B. METEOROLOGICAL SPECIALIST

Donald E. Eick
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C. DETAILS OF INVESTIGATION

The National Transportation Safety Board's (NTSB) meteorology specialist was not on scene for this investigation and gathered all the weather data for this investigation from the Washington D.C. office from official National Weather Service (NWS) sources including the National Climatic Data Center (NCDC). All times are based upon the 24 hour clock. Directions are referenced to true north and distances in nautical miles. Heights are above mean sea level (MSL) unless otherwise noted. Visibility is in statute miles and fractions of statute miles.

[1] UTC – is an abbreviation for Coordinated Universal Time.

1.0 Synoptic Situation

The synoptic or large scale migratory weather systems influencing the area were documented using standard NWS charts issued by the National Center for Environmental Prediction (NCEP) located in Camp Springs, Maryland. These are the base products used in describing weather features and in the creation of forecasts and warnings.

1.0.1 Surface Analysis Chart

The northeast section of the NWS Surface Analysis for 1400 local is included as figure 1 and depicted the large-scale features influencing the area prior to the accident. The chart depicted a high pressure system with a central pressure of 1029-millibars (mb) extending over he New England states. The accident site was located within the first closed isobar of the high pressure system and indicated a weak pressure gradient across the area.

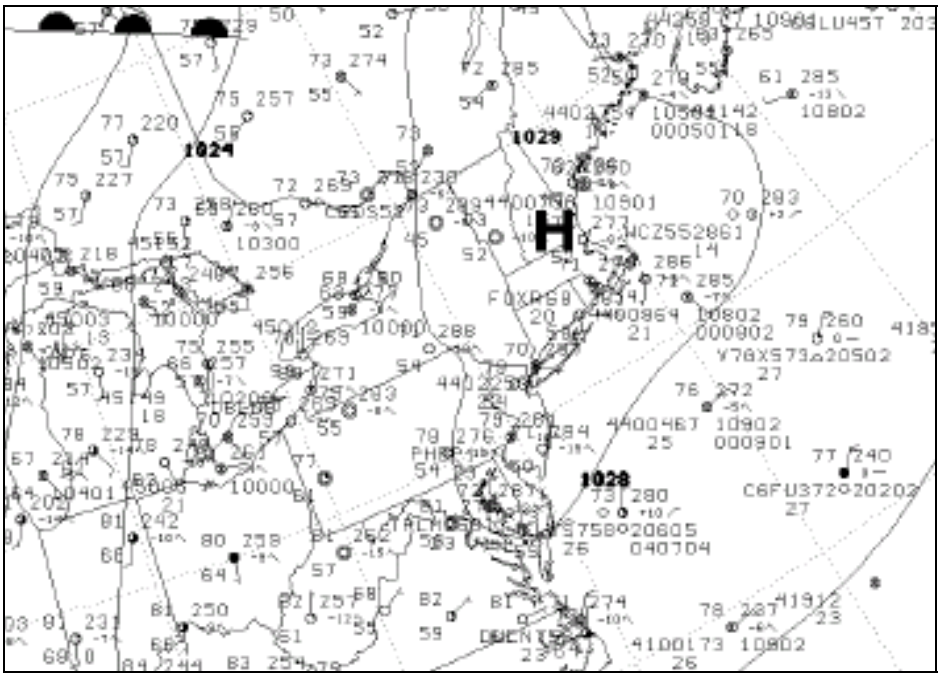

Figure 1 – NWS Surface Analysis Chart for 1400 EDT

The station models on the chart indicated calm to light winds, clear skies, and temperatures in the upper 60's to low 70's (degrees Fahrenheit (F)), with dew point temperatures in the 50's. No hazardous weather phenomenon was reported across New York State.

1.0.2 Radar Summary Chart

The NWS regional radar composite chart for 1500 local is included as figure 2. The radar mosaic depicted no weather echoes over the region during the period.

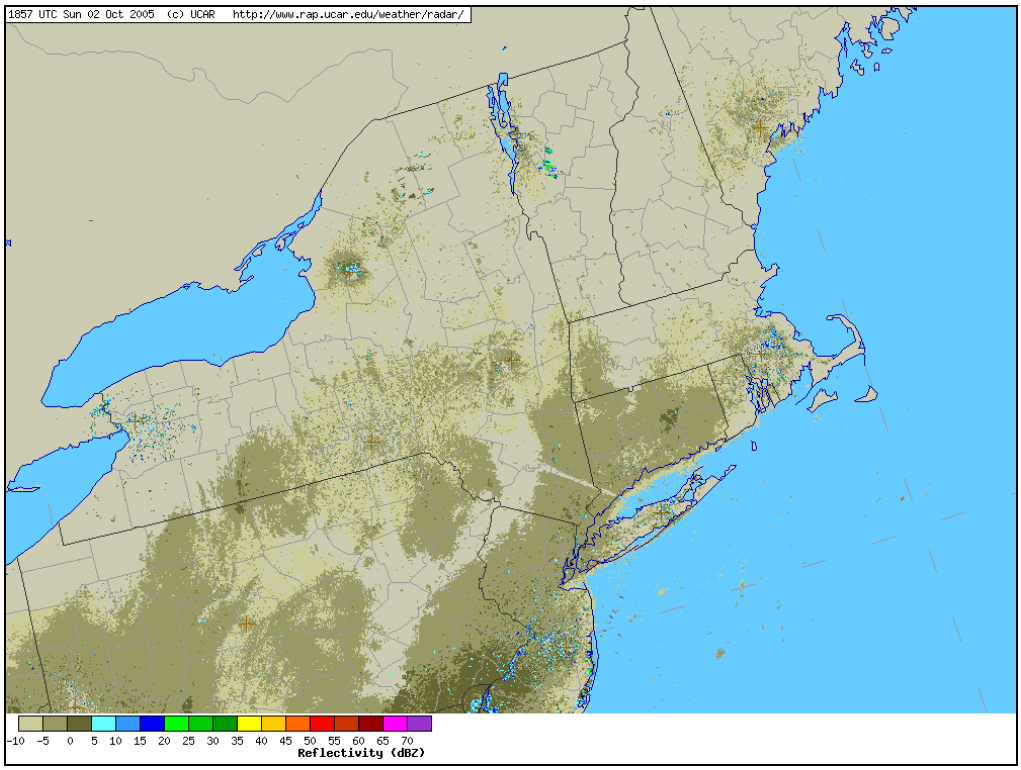

Figure 2 – NWS Radar composite for 1500 EDT

2.0 Surface Observations

The closest official weather reporting facility to the accident site was from Floyd Bennett Memorial Airport (KGFL), Glens Falls, New York, located approximately 3 miles northeast of the city of Glens Falls and approximately 6 miles east-southeast of the accident site, at an elevation of 328 feet msl. The airport had an automated surface observation system (ASOS) and reported the following weather conditions surrounding the time of the accident:

Glens Falls automated weather observation at 1353 local, wind calm, visibility unrestricted at 10 statute miles, sky clear, temperature 71 degrees F, dew point temperature 53 degrees F, altimeter 30.37 inches of Mercury (Hg). Remarks: automated observation system, sea level pressure 1028.7-mb, 6-hour maximum temperature recorded 72 degrees F, 6-hour minimum temperature recorded 43 degrees F, 3-hour pressure tendency fallen 1.5-mb.

Glens Falls automated weather observation at 1453 local, wind calm, visibility unrestricted at 10 statute miles, sky clear, temperature 71 degrees F, dew point temperature

52 degrees F, altimeter 30.36 inches of Hg. Remarks: automated observation system, sea level pressure 1028.1-mb.

Glens Falls automated weather observation at 1553 local, wind calm, visibility unrestricted at 10 statute miles, sky clear, temperature 71 degrees F, dew point temperature 52 degrees F, altimeter 30.35 inches of Hg. Remarks: automated observation system, sea level pressure 1028.0-mb.

During the morning hours from 0100 to 0800 local Glens Falls reported visibility restricted in dense fog to mist, with low stratiform clouds. Conditions improved after 0800 local and become unrestricted visibility and clear skies through the afternoon hours. After Sunset, visibility again was restricted in fog and mist into the early morning hours.

3.0 Satellite Data

The Geostationary Operations Environmental Satellite number 12 (GOES-12) data was obtained from the National Climatic Data Center (NCDC) and displayed on the National Transportation Safety Board's Man-computer Interactive Data Access System (McIDAS) workstation. Both visible and infrared imagery was obtained surrounding the time of the accident. The infrared imagery (band 4) at a wavelength of 10.7 microns (μm) provided a 4-kilometer (km) resolution with radiative cloud top temperatures. The visible imagery (band 1) at a wavelength of 0.65 μm provided a resolution of 1 km. The satellite imagery surrounding the time of the accident from 1400 through 1600 EDT, at approximately every 15-minutes were reviewed and the closest images documented below.

Figure 3 is the GOES-12 visible image at 1502 EDT at 6X magnification. The image depicts clear skies over the area.

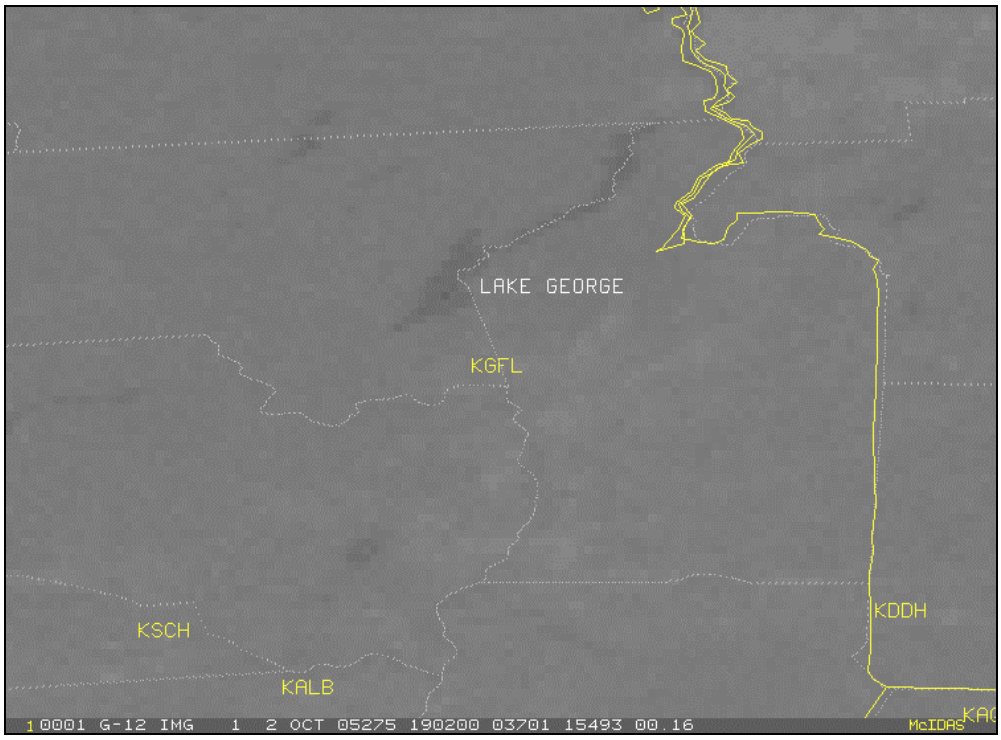

Figure 3 – GOES-12 visible image at 1502 EDT

4.0 NWS Public Advisories

The NWS Albany Office issued no hazardous weather advisories on October 2, 2005.

5.0 Water Conditions

Waves are created by the wind direction, speed, fetch, and duration. Based on the surface analysis chart and the location of the high pressure system dominating over the region, the winds were calm to light over the area and not supportive of creating any significant wave action.

No NWS boating advisories were in effect for the period and water temperature was reported at 68 degrees F.

6.0 Astronomical Data

The astronomical data was obtained from the United States Naval Observatory located in Washington, D.C. for Lake George, New York, and is as follows:

Beginning of civil twilight:	0626 EDT
Sunrise:	0653 EDT
Sun transit:	1244 EDT

Elevation of the Sun:	35.7 degrees above the horizon at 1500 EDT
Azimuth of Sun:	223.3 degrees at 1500 EDT
Sunset:	1835 EDT
End of civil twilight:	1903 EDT
Phase of Moon:	waning crescent with 1 percent illuminated.

Donald E. Eick
NTSB Senior Meteorologist